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## State of Utah

## DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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DIVISION OF CIL GAS & MINING

August 5, 1993

Mr. Dave Hodson, Manager Barneys Canyon Mine P.O. Box 311 Bingham Canyon, Utah 84006-0311

RE: Cyanide in Mine Water, Ground Water Discharge Permit No. UGW350001

Dear Mr. Hodson:

This is in response to your letter of July 14, 1993 regarding the reporting of cyanide detected in mine pit water at Barneys Canyon. We agree with your assumption that it is highly unlikely that the leach operation has contaminated water in the mine pit because the pit is upgradient the leach site.

Our main concern is that the monitoring wells are downgradient the mine and the leaching operation, but were specifically emplaced and designed to monitor the leach operation. An upgradient source of cyanide in the mine pits, the origin and fate of which is poorly understood, may complicate the monitoring operation. The sporadic generation of cyanide during blasting is probably not a problem, but there appears to be some uncertainty as to the origin or source. An additional concern now is that Barneys Canyon again plans to discharge large quantities of water from the mine site (water that potentially could contain cyanide) into washes where the water will percolate underground not far from the monitoring wells. This discharge water is pumped from wells beneath the mine to lower the water level. Contaminants such as cyanide from the mine area could show up at a future date at these monitoring points. Ground water downgradient the Barneys Canyon operation is of good chemical quality and must be protected. Therefore water from the mine pit after a storm, or from the wells that is found to contain contaminants, should be sent to the concentrator and not be discharged to the washes.

For these reasons we believe it is still prudent that the discharge of water from the mine site be monitored closely and the upgradient pit source and concentration of cyanide become better understood. Our July 16, 1993 letter granted approval to discharge only the well water and not

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any pit runoff water to the washes, and requested close monitoring of the discharge quality. If you have questions call Mack Croft or Larry Mize at 538-6146.

Sincerely,

Fred C. Pehrson, P.E., Manager

Permits, Compliance & Monitoring Branch

FCP:MC:gt

cc: Kent Miner, SLC/County Health Dept.

DOGM 🗸

P:BCCYANIDE.LTR